Message

From: Wayne Miller [miller.wayne@azdeq.gov]

Sent: 9/18/2019 6:58:53 PM

To: steve [steve@uxopro.com]; Bo Stewart [bo@praxis-enviro.com]; Jennings, Eleanor [eleanor.jennings@parsons.com]

CC: D'Almeida, Carolyn [dAlmeida.Carolyn@epa.gov]; Davis, Eva [Davis.Eva@epa.gov]

Subject: 2019-9-18 - WAFB- FYI - status biological field analyses & proposed lab collection -ST012 EBR

FYI - amec/wood response to ADEQ lab data request. If I interpret this correct, at this time, only qualitative colony count field screening has been performed at two locations. Three more field screen colony count numbers are to be collected (by 9-25-2018???) and the counts may be included in the September (or October???) BCT. I guess that means field screen Wednesday afternoon (9-18-2019) or Thursday morn (9-19-2019) if going to show at Sept. BCT.

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From: **Smallbeck, Donald R.** <donald.smallbeck@woodplc.com>

Date: Wed, Sep 18, 2019 at 9:31 AM

Subject: 2019-8-27 - WAFB- request for biological analyses lab data -ST012 EBR

To: Wayne Miller < Miller. Wayne@azdeq.gov >, d'Almeida, Carolyn K. < dAlmeida.Carolyn@epa.gov > Cc: Pearson, Stuart C. < stuart.pearson@woodplc.com >, JERRARD, CATHERINE V GS-13 USAF HAF

AFCEC/CIBW <catherine.jerrard@us.af.mil>, William Hughes <William.Hughes@cn-bus.com>

Wayne and Carolyn

On behalf of the Air Force, please find a response to your recent email request as noted in subject line above.

As previously documented in an AF email on February 07, 2019 and an AF hard copy response dated June 17, 2019 regarding previous similar requests for biological data as presented in the ST012 Pilot Study Implementation Work Plan (Pilot Study WP), the timing of tests (SIP [13C in PLFA and DIC], SRB [qPCR] EBAC [qPCR]) will depend on laboratory and field data that indicate the desired conditions have been established in the areas of treatment. The original sampling locations have not changed from those outlined in

the Pilot Study Workplan. The locations will continue to be evaluated as additional sampling data is collected and it is possible that changes may be proposed. Any proposed changes will be presented and discussed during BCT calls and/or meetings.

The initial round (Phase 1) of injections has not been completed, however; sulfate distribution is complete at 2 locations. These 2 locations were not the original locations sampled for the baseline sampling event as identified in the Pilot Study WP. Initial biological field screening (BART test) for sulfate reducing bacteria (SRB) has been performed at the two locations and the data was previously presented in the May BCT meeting presentation. The field screening data indicated that SRBs were present ranging from 1,000 to 100,000 colony forming units per milliliter (cfu/ml) of groundwater. In the next 30-60 days, The AF will be evaluating analytical data from the recent quarterly sampling (Aug 2019) for these 2 locations and will determine if the biological testing as outlined in the Pilot Study should also be additionally implemented at these locations.

Very recently (within the last week) sulfate distribution at three additional locations has been completed. Initial biological field screening (Bart test) will be performed at those three locations in the next 7 days and the results, if available, will be presented in the upcoming September BCT call. The AF has and will continue to update the regulatory agencies and keep them informed of biological sampling as per the Pilot Study and/or changes to biological sampling as the pilot study proceeds. A table containing all BART field screening SRB data to date will be uploaded to SharePoint within the next week.

D.R. Smallbeck Principal Program Manager Construction Remediation

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